WEATHER, FORECASTS, AND WARNINGS.

By EDWARD H. BOWIE, District Forecaster.

Alaska.—Pressure averaged decidedly below normal for the month. Lows occurred about the 4th, 6th–7th, 10th, 15th–16th, 18th, 20th–21st, and 29th–30th; and highs about the 1st, 8th, 14th, and 24th–26th.

Honolulu.—Pressure averaged normal for the month. Lows occurred on the 4th–7th, 21st–23d, 27th, and 30th–31st; and highs on the 1st–2d, 10th, 19th, 25th, and 28th–29th.

Azores.—Pressure averaged about normal, being relatively high during the first half and low during the latter half of the month. Lows occurred on the 2d, 15th, 17th–18th, 24th–25th, and 28th–29th; and highs on the 4th–9th, 12th–13th, 20th, 22d–23d, and on the last day of the month.

Iceland.—Pressure averaged above normal. Lows occurred on the 3d, 7th, 10th–11th, 15th–16th, 20th, 22d–23d, and 29th; and highs on the 5th–6th, 9th, 13th, 17th–18th, 21st–22d, 25th, 27th–28th, and 31st.

Siberia.—Pressure averaged slightly above normal. The more important lows of the month occurred about the 1st, 4th, 11th, 13th, 14th–15th, 20th, and 23d; and highs about the 5th, 8th–9th, 15th–16th, 22d, 24th–25th, 27th, and 30th.

Miscellaneous.—Abnormally cool weather prevailed over the British Isles, Germany, and Switzerland, and extremely warm weather over Russia. A severe storm visited the Bay of Biscay on the 13th–14th, causing considerable damage to shipping and the loss of a number of lives. During the last decade of the month, flood conditions prevailed in the eastern counties of England, and railroad traffic was demoralized.

In the United States the month opened with a low pressure area off the middle Atlantic coast, which caused showers in Atlantic coast districts, and high pressure areas were central, one over the Dakotas and another on the north Pacific coast.

During the night of the 1st a disturbance developed over the southern upper Lake region and advanced northeastward during the next two days, causing showers and thunderstorms from the upper Mississippi Valley eastward to the Atlantic coast. Unsettled weather, with showers and thunderstorms prevailed in the Gulf States from the 1st to 5th. A destructive local storm, accompanied by hail, is reported to have occurred at Clover, S. C., on the 3d.

The high pressure area that was central over the Dakotas on the 1st of the month moved to southern Wisconsin by the morning of the 4th and thence passed to the Atlantic coast with diminished intensity. On the morning of the 4th, frosts occurred in the cranberry marshes of Wisconsin, warnings of which had been issued the previous day.

The following weekly forecast was issued Sunday, August 4:

The general distribution of atmospheric pressure over the Northern Hemisphere is such as to indicate that there will be no unusually warm weather in any part of the country during the next week to 10 days. The first part of the coming week will give moderate temperatures in the Eastern and Southern States, followed by a change to somewhat warmer weather the latter half of the week. Over the Middle Wes and the Northwest moderate temperature for the season is probable throughout the week, while west of the Rocky Mountains temperatures will average near or slightly below the normal. The weather during the week will be generally fair, except for a short period of local rains attending the eastward movement of a disturbance that will appear in the far West Tuesday or Wednesday, cross the Middle West about Thursday and the Eastern States near the end of the week. Cooler weather will follow this disturbance.

For the first five days of the month temperatures averaged below normal, except along the immediate Gulf coast and in the southern slope districts of the Rocky Mountains. Precipitation was fairly well distributed, but was generally light.

A low-pressure area that appeared over the northern Plateau region on the 3d, advanced slowly eastward to the Plains States by the morning of the 7th and to the upper Lake region by the 10th. Small craft warnings were issued for Lake Superior on the morning of the latter date. The storm passed northeastward to Quebec by the morning of the 12th. Severe thunderstorms occurred in connection with this storm in the upper Mississippi Valley and in the upper Lake region on the afternoon of the 10th, and a tornado was reported near Fort Worth, Tex., on the 9th. Precipitation was quite general from the Pacific to the Atlantic coast. The abnormally slow eastward movement of this disturbance was due to a persistence of high pressure from the 7th to the 12th over the Canadian Maritime Provinces.

During the 6th a high-pressure area moved inland over the north Pacific States and passed slowly eastward to the Plains States by the 9th. During the 48 hours following it decreased in intensity and lost its identity.

The following weekly forecast was issued Sunday, August 11:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that the coming week will be moderately warm over the Great Central Valleys, the Lake region, and the Eastern and Southern States, while normal temperatures are probable on the Pacific slope and in the Rocky Mountain region. The precipitation during the week will be generally light and local, and fair weather will be the rule. There are no signs at the present time of conditions favorable to the development of a disturbance in West Indian waters.

For the week ending August 12 temperatures were generally below the seasonal average, although along the immediate Gulf and Pacific coasts and over the Southwest they averaged above normal. There was practically no precipitation during the first few days of the week, but from the 7th until the close of the week precipitation occurred over almost all portions of the country east of the Rocky Mountains.

A low-pressure area that was over Alberta on the 10th advanced along the northern border to the Grand Banks by the 16th, causing showers and thunderstorms in northern districts from the Plains States eastward, as well as over portions of the Gulf and South Atlantic States.

A high-pressure area that appeared over Alberta on the evening of the 13th advanced to the upper Lake region by the 16th, and was off the southern New England coast by the 18th.

The following weekly forecast was issued Sunday, August 18:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that the coming week will be one of moderately high temperatures in the Southern States and generally over the Middle West, while in the Northern States and west of the Rocky Mountains temperatures will be near or below the seasonal average. The precipitation during the week will be light and local over the southern half of the country and generally above the normal in the Northern States. The next disturbance to cross the country will appear in the Northwest Tuesday, cross the Middle West about Thursday, and the Eastern States Friday or Saturday. There are no indications at the present time of a disturbance in the West Indies.

For the week ending August 19 temperatures were as a rule above normal over central and southern districts from the Rocky Mountains eastward, except along the immediate northern border. In all other districts temperatures averaged below normal. Precipitation for the week was abundant in the north Pacific Coast States and over an area from Kansas and Missouri northward to the Canadian border and eastward to the Lake region and Ohio Valley. It was decidedly below normal in portions of the South Atlantic and Gulf States.

A low-pressure area that was over British Columbia on the 15th, advanced to the Plains States by the 17th, and by the morning of the 20th was central near the Grand Banks. Showers and thunderstorms occurred over the northern and central tiers of States from the Pacific to the Atlantic coast. Thunderstorms were particularly severe in portions of Indiana.

Conditions remained unsettled with pressure relatively low from the upper Lake region to the southern Plateau after the passage of the storm previously mentioned, and during the four days, 18th to 21st, a disturbance passed northeastward from the southern Plains States to Ontario, causing showers and thunderstorms in the Lake region and Middle Atlantic and New England States.

A low of marked intensity passed from northern Manitoba on the 21st to Quebec on the 23d, and by the morning following was over the Canadian Maritime Provinces. Precipitation was quite general east of the Mississippi River.

On the 19th a high-pressure area passed inland from the north Pacific Ocean and remained practically stationary over the northern and middle Plateau regions until the 22d, when it decreased in intensity and lost its identity.

A low-pressure area appeared over Saskatchewan on the 23d, advanced to Wisconsin by the 24th, and thence passed to the Grand Banks by the 26th. Scattered showers and thunderstorms occurred in northern districts and also in the Middle and South Atlantic States.

The following weekly forecast was issued Sunday, August 25:

The distribution of barometric pressure over the North American Continent and the adjacent oceans is such as to indicate that warm weather will be the rule the next several days over the greater part of the country east of the Mississippi River and during the first part of the week in the middle Mississippi Valley and the southern Plains States. A change to considerably cooler weather will overspread the Northwestern States during the next two days, the Middle West by Wednesday and the Eastern and Southern States the latter part of the week. The first half of the week will be generally fair in the Eastern and Southern States and unsettled with local rains in the northwestern districts and the Rocky Mountains region; the latter half of the week will be showery over much of the country from the Great Central Valleys eastward and in the West Gulf States. There are no indications at the present time of a disturbance in the West Indies.

For the week ending August 26, temperatures averaged generally above the normal throughout the country. On the 25th temperatures were unusually high in the Plains States. In districts to the westward of the Rocky Mountains, local showers occurred in the northern mountains during the first part of the week and in portions of the southern districts about the middle of the week—otherwise there was little rain. East of the Rocky Mountains showers and thunderstorms occurred during the first part of the week from the upper Mississippi Valley eastward to the middle Atlantic coast, and more or less rain occurred over nearly all districts east of the Mississippi River by the middle of the week. During the latter part of the week there was little precipitation in the Great Central Valleys. Showers, however, occurred in portions of the Atlantic and Gulf coast districts.

A low-pressure area appeared over Alberta on the 24th, advanced to Ontario by the 26th, and by the 28th had passed to the Canadian Maritime Provinces. It caused showers and thunderstorms from the Mississippi Valley eastward. A severe local storm passed over Kearny, N. J., on the 26th.

A high-pressure area was central over the Plains States on the 26th and advanced to the Middle Atlantic States by the 28th.

A low-pressure area that was central over British Columbia on the evening of the 26th caused showers during the next 24 hours over the northern Plateau and northern Slope States. The disturbance advanced to Minnesota by the 28th and during the 24 hours following decreased in intensity and disappeared. It caused showers and thunderstorms from the Missouri Valley eastward over Middle and Northern States. A severe local storm occurred at Spooner, Wis., during the night of the 27th. Following the disappearance of the low just mentioned, a high-pressure area of slight intensity appeared over Lake Superior on the 29th, and by the last of the month had advanced to southern New England, causing frosts in northern New York and northern New England on the morning of the 31st, warnings of which had been previously disseminated.

From the 24th to the end of the month pressure was relatively high in the South Atlantic and East Gulf States, and temperatures were generally above normal over central and southern districts east of the Mississippi River. In the South Atlantic States some of the highest temperatures of the season were reported.

On the last day of the month pressure was relatively high over the East and low over the West, a low being central over Alberta, with a trough extending southeastward into the southern Plains States.

No storms of tropical origin visited the United States during the month.

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since Jan. 1.	Average departures since Jan. 1.
New England	12	65.2	−2.0	−12.0	−1.5
Middle Atlantic	15	71.2	−1.3	−12.7	−1.6
South Atlantic	10	78.4	+0.6	− 5.4	−0.7
Florida Peninsula [1]	9	81.8	+0.5	+ 2.0	+0.2
East Gulf	11	79.6	+0.4	−11.1	−1.4
West Gulf	11	82.0	+1.0	−13.9	−1.7
Ohio Valley and Tennessee	14	73.3	−1.5	−21.1	−2.6
Lower Lakes	11	66.2	−3.4	−27.6	−3.4
Upper Lakes	13	62.7	−3.6	−28.7	−3.6
North Dakota [1]	9	63.4	−2.7	−11.6	−1.4
Upper Mississippi Valley	14	71.7	−1.2	−25.5	−3.2
Missouri Valley	12	74.1	+0.3	−13.9	−1.7
Northern slope	9	64.1	−2.6	−12.8	−1.6
Middle slope	6	75.6	+0.4	−17.0	−2.1
Southern slope [1]	8	80.6	+1.0	− 9.1	−1.1
Southern Plateau [1]	10	78.2	−1.7	− 5.6	−0.7
Middle Plateau [1]	10	67.5	−2.2	− 7.1	−0.9
Northern Plateau [1]	10	63.4	−3.6	− 5.3	−0.7
North Pacific	7	60.5	−0.6	+ 6.9	+0.9
Middle Pacific	7	64.3	−0.6	− 2.1	−0.3
South Pacific	4	69.1	−1.4	+ 1.5	+0.2

[1] Regular Weather Bureau and selected cooperative stations.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
New England	11	2.96	77	−0.90	− 1.40
Middle Atlantic	15	2.96	88	−0.40	− 1.10
South Atlantic	11	3.87	63	−2.30	− 1.60
Florida Peninsula [1]	9	5.03	73	−1.90	+ 9.30
East Gulf	11	4.90	100	0.00	+13.30
West Gulf	10	3.09	103	+0.10	− 1.50
Ohio Valley and Tennessee	14	4.00	118	+0.60	+ 3.90
Lower Lakes	10	3.89	130	+0.90	+ 0.80
Upper Lakes	13	4.19	140	−1.20	− 0.50
North Dakota [1]	9	3.13	134	+0.80	+ 1.90
Upper Mississippi Valley	15	3.73	115	+0.50	− 1.30
Missouri Valley	12	3.80	112	+0.40	− 2.70
Northern slope	9	1.53	124	+0.30	+ 0.60
Middle slope	6	3.44	141	+1.00	+ 0.40
Southern slope [1]	8	3.13	134	+0.80	+ 2.40
Southern Plateau [1]	9	1.08	84	−0.20	+ 0.40
Middle Plateau [1]	11	0.82	100	0.00	0.00
Northern Plateau [1]	10	1.92	369	+1.40	+ 2.40
North Pacific	7	2.86	511	+2.30	− 0.70
Middle Pacific	7	0.01	100	0.00	− 3.40
South Pacific	4	0.06	.....	+0.10	− 0.20

[1] Regular Weather Bureau and selected cooperative stations.

Average relative humidity and departure from the normal.

Districts.	Average.	Departure from normal.	Districts.	Average	Departure from normal.
New England	79	− 3	Missouri Valley	68	+ 1
Middle Atlantic	74	− 2	Northern slope	62	+10
South Atlantic	80	− 2	Middle slope	66	+ 7
Florida Peninsula	77	− 2	Southern slope	62	+ 1
East Gulf	82	+ 2	Southern Plateau	46	+ 4
West Gulf	74	− 1	Middle Plateau	41	+ 8
Ohio Valley and Tennessee	78	+ 6	Northern Plateau	52	+ 9
Lower Lakes	78	+ 7	North Pacific	79	+12
Upper Lakes	83	+ 8	Middle Pacific	64	− 3
North Dakota	78	+14	South Pacific	66	0
Upper Mississippi Valley	76	+ 6			

Average cloudiness and departure from the normal.

Districts.	Average.	Departure from normal.	Districts.	Average.	Departure from normal.
New England	6.0	+1.0	Missouri Valley	3.8	−0.3
Middle Atlantic	5.5	+0.4	Northern slope	4.4	+0.5
South Atlantic	5.2	0.0	Middle slope	3.8	0.0
Florida Peninsula	5.3	+0.1	Southern slope	3.6	−0.3
East Gulf	5.7	+0.5	Southern Plateau	2.8	−0.9
West Gulf	3.9	−0.1	Middle Plateau	2.7	−0.6
Ohio Valley and Tennessee	5.9	+1.4	Northern Plateau	4.6	+2.3
Lower Lakes	6.2	+1.6	North Pacific	5.7	+1.1
Upper Lakes	6.8	+2.1	Middle Pacific	3.4	−0.2
North Dakota	5.5	+1.5	South Pacific	2.2	−0.6
Upper Mississippi Valley	5.3	+1.1			

Data, maximum wind velocities.

Stations.	Date.	Velocities.	Direction.	Stations.	Date.	Velocities.	Direction.
Bismarck, N. Dak.	11	50	nw.	Oklahoma, Okla.	8	52	n.
Buffalo, N. Y.	26	50	sw.	Pierre, S. Dak.	11	60	ne.
Cleveland, Ohio	26	54	sw.	Pierre, S. Dak.	18	52	w.
Concordia, Kans.	5	51	ne.	Pittsburgh, Pa.	18	55	nw.
El Paso, Tex.	22	51	ne.	Point Reyes Light, Cal.	8	50	nw.
Minneapolis, Minn.	19	54	e.	Point Reyes Light, Cal.	9	54	nw.
Modena, Utah	17	50	sw.	Point Reyes Light, Cal.	14	50	nw.
Mount Tamalpais, Cal.	7	61	nw.	Point Reyes Light, Cal.	15	74	nw.
Mount Tamalpais, Cal.	8	70	nw.	Point Reyes Light, Cal.	16	64	nw.
Mount Tamalpais, Cal.	9	60	nw.	Point Reyes Light, Cal.	17	52	nw.
Mount Tamalpais, Cal.	15	72	nw.	Point Reyes Light, Cal.	28	52	nw.
Mount Tamalpais, Cal.	28	75	nw.	Point Reyes Light, Cal.	29	59	nw.
Mount Tamalpais, Cal.	29	68	nw.	Point Reyes Light, Cal.	31	63	nw.
Mount Tamalpais, Cal.	31	60	nw.				
North Head, Wash.	15	53	s.				
North Head, Wash.	30	54	se.				